

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 July 2005 (07.07.2005)

PCT

(10) International Publication Number
WO 2005/061893 A1

(51) International Patent Classification⁷: **F04B 39/00**,
F01B 9/02, F16C 7/04, 3/26

(21) International Application Number:
PCT/KR2003/002839

(22) International Filing Date:
24 December 2003 (24.12.2003)

(25) Filing Language: Korean

(26) Publication Language: English

(71) Applicant (for all designated States except US): **LG ELECTRONICS INC.** [KR/KR]; 20, Yoido-dong,,
Youngdungpo-gu, Seoul 150-721 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KIM, Hyun**
[KR/KR]; 201-303, Daewoo APT., Namsan-dong, Chang-
won-si, Gyeongsangnam-do 641-090 (KR). **BAE, Ji**
Young [KR/KR]; 521-18, Yongho 2-dong, Nam-gu, Bu-
san-si 608-092 (KR). **ROH, Chul Gi** [KR/KR]; 123-2204,
Daedong APT., 44-1, Sangnam-dong, Changwon-si,
Gyeongsangnam-do 641-010 (KR). **JANG, Chang Yong**
[KR/KR]; 101-1005, Burim APT., Maegok-dong, Buk-gu,
Gwangju-si 500-150 (KR). **SIN, Jong Min** [KR/KR];
Munhyeon 3-dong, Nam-gu, Busan-si 608-040 (KR).

(74) Agents: **BAHNG, Hae Cheol** et al.; KIMS INTERNA-
TIONAL PATENT & LAW OFFICE, 15th Floor Yo Sam
Building,, 648-23, Yeoksam-dong, Kangnam-gu, Seoul
135-080 (KR).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT,
RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

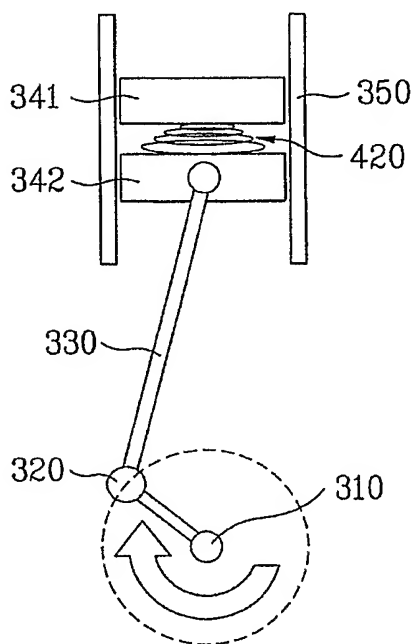
(84) Designated States (*regional*): ARIPO patent (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: COMPRESSOR



(57) **Abstract:** Compressor including a supplementary torque providing part for reducing a speed of a piston (340) in compression of refrigerant, and increasing the speed of the piston (340) in drawing of the refrigerant, thereby reducing a compression rate of the refrigerant in compression relatively, and increasing a re-expansion rate, to maximize a suction efficiency.

WO 2005/061893 A1